



ENERGY &  
ENVIRONMENT  
AWARDS

Skills for a greener world

EEA Level 3 End-point Assessment for Engineering  
Construction Pipefitter

## **Apprentice Guide**

QAN 610/6020/3  
ST0162 V1.1 V1.2 V1.3

# Apprentice Guide for

## EEA Level 3 End-point Assessment for Engineering Construction Pipefitter

**QAN 610/6020/3**

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## Updates to this Guide

Since the first publication of Energy & Environment Awards Engineering Construction Pipefitter Apprentice Guide, the following updates have been made.

Version	Date first published	Section updated	Page(s)
V3.0	April 2025	Rebranded	All
V2.1	August 2023	Update to Assessment Plan references v1.2 Amend to number assessors required for Structured Professional Review	Footer 5, 6, 13, 22-24
V2.0	July 2023	Rebranded and revised content using new template	All
V1.0	May 2021	First published	All



### At A Glance Component 1: Knowledge Test

Date(s):	
Time:	
Location:	
Examination Conditions:	Controlled by an invigilator
Additional Requirements:	
Assessed and marked by:	Energy & Environment Awards



### At A Glance Component 2: Practical Assessment

Date(s):	
Time:	
Location:	
Examination Conditions:	With an Energy & Environment Awards assessor in your place of work or training environment
Additional Requirements:	Energy & Environment Awards set task
Assessed and marked by:	Independent assessor/Energy & Environment Awards



### At A Glance Component 3: Structured Professional Review

Date(s):	
Time:	
Location:	
Examination Conditions:	
Additional Requirements:	<p>Takes place after successful completion of the knowledge test and practical assessment</p> <p>You need to complete and submit:</p> <ul style="list-style-type: none"> <li>• an evidence report</li> <li>• a mini portfolio</li> </ul>
Assessed and marked by:	<p>Apprentices who started their apprenticeship:</p> <ul style="list-style-type: none"> <li>• on or after 15 August 2023 - 1 Independent assessor</li> <li>• before 15 August 2023 - 2 Independent assessors</li> </ul>

## Introduction



Energy & Environment Awards has been selected by your employer to carry out end-point assessment (EPA) and it is our job to ensure that you are assessed fairly.

## How This Apprentice Guide Is Organised

✓ Section 1:

What is in the Apprentice Guide?

✓ Section 2:

An Apprentice's End-point Assessment Journey

✓ Section 3:

End-point Assessment Components

## How to Use This Guide



This guide has been split into 3 sections. You can dip into each section that you are working on where you will find useful information, practical advice, tips you need and useful dates to successfully complete your EPA.

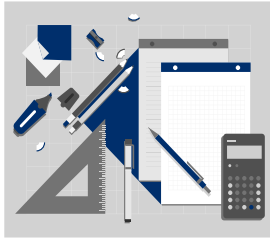
Throughout we have used headings and cross referenced to our EPA Engineering Construction Pipefitter (ECP) Specification and/or Supporting Documents which provides details of the EPA components.

**IMPORTANT NOTE:** Skills England published a new Engineering Construction Pipefitter Assessment Plan ST0162/V1.2 which came into effect for apprentices who started their apprenticeship on or after 15 August 2023. The main difference is that the Structured Professional Review will be assessed by one independent assessor. Apprentices who started their apprenticeship before this date will be assessed in the Structured Professional Review by two independent assessors.

This Energy & Environment Awards ECP EPA Apprentice Guide is written for ST0162/V1.2.

## Section 1: The Basics

### What is an Apprenticeship Standard?



- An apprenticeship standard is a description of your apprenticeship and it is based on the Engineering Construction Pipefitter standard, which was written by employers. It contains the Engineering Construction Pipefitter's job profile, and describes the knowledge, skills and behaviours (KSBs):
  - Knowledge: (as part of KSBs) – specific information, technical detail, and 'know-how' identified as part of the apprenticeship standard that must be evidenced during your end-point assessment
  - Skills: (as part of KSBs) – the practical application of knowledge identified as part of the apprenticeship standard that must be evidenced during end-point assessment
  - Behaviours (as part of KSBs) – specific mindsets, attitudes or approaches identified as part of the apprenticeship standard that must be evidenced during end-point assessment

The standard can be accessed via the link below:

<https://skillsengland.education.gov.uk/apprenticeship-standards/st0162-v1-2>

### What is an Assessment Plan?

An Assessment Plan is also written by employers and provides details of what is required for you to pass your end-point assessment. It includes details of what you will be assessed on, how each assessment will take place, what methods will be used and who will assess you.

Energy & Environment Awards designed the end-point assessment (EPA) to meet the requirements of the Assessment Plan. The Assessment Plan can be accessed via the link below:

[https://skillsengland.education.gov.uk/media/ygtf2zur/st0162\\_engineering-construction-pipefitters\\_l3\\_v12.pdf](https://skillsengland.education.gov.uk/media/ygtf2zur/st0162_engineering-construction-pipefitters_l3_v12.pdf)

## What is an end-point assessment (EPA)?

The end-point assessment is the assessments you take at the end of your apprenticeship. You will typically spend 36 months on-programme working towards your standard with a minimum of 20% off-the-job training. You are required to spend a minimum of 12 months on-programme. After this you have a Gateway meeting with your employer or training provider to confirm you are ready for the end-point assessments. The words end-point means that you will be assessed at the end of your on-programme (training) to confirm you have met the standard. Your EPA period will typically last 6 months. The end-point assessments consist of 3 components:

- Knowledge Test
- Practical Assessment
- Structured Professional Review

Each component has a provisional grade and each grade is carried forward to award a final grade. You must pass all 3 components to pass your apprenticeship.

The final grade can be a Fail, Pass, Merit or Distinction.

## What are the Gateway Requirements?

Gateway is a meeting where your employer, training provider and you ensure that you are confident that you can demonstrate all the KSBs defined in the apprenticeship standard and you are ready for EPA. After the meeting, your training provider will confirm the outcomes of the Gateway meeting by sending a signed document to Energy & Environment Awards. The document confirms that you have met the following Gateway requirements:

- achieved English and maths at level 2
- achieved Level 3 Diploma in Installing Engineering Construction Plant and Systems
- completed an evidence report to support you in your Structured Professional Review
- compiled a mini portfolio of evidence, which you can reference in your Structured Professional Review

Your training provider will send copies of these documents to Energy & Environment Awards.



## What is the EPA Specification?

EEA Level 3 End-point Assessment for Engineering  
Construction Pipefitter

### Specification

QAN 610/1777/2

The end-point assessment specification provides details of the assessment methods used in your EPA, which KSBs are covered by each assessment and KSBs amplification and guidance

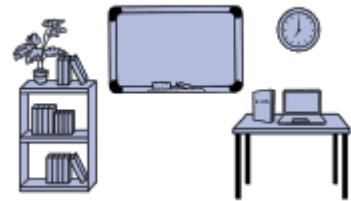
The Specification can be accessed via the link below:

<https://energyenvironmentawards.co.uk/epa/engineering-construction-pipefitter/>

## Section 2: Apprentice EPA Journey

### Let us Begin Your EPA Journey.

Find a quiet place and read on....



Your EPA journey consists of 3 elements:

- A training programme with on the job, off the job elements, typically 36 months
- Gateway meeting window
- End-point Assessment (EPA) typically 6 months

Your journey begins with the training program. Your employer and training provider are responsible for this part. This is where you will gain the required Knowledge, Skills and Behaviours (KSBs).

### How will you be assessed in the end-point assessment?

You will be assessed on the following components:

- 1. Knowledge Test**
- 2. Practical Assessment**
- 3. Structured Professional Review**

The Structured Professional Review must take place after successful completion of the knowledge test and practical assessment.

The assessments are weighted when the final grade is calculated:

1. Knowledge Test (35% weighting)
2. Practical Assessment (55% weighting)
3. Structured Professional Review (10% weighting)

It is important for you to keep a record of when your 3 components are scheduled. We suggest you use the 'At a Glance' tables on page 5.

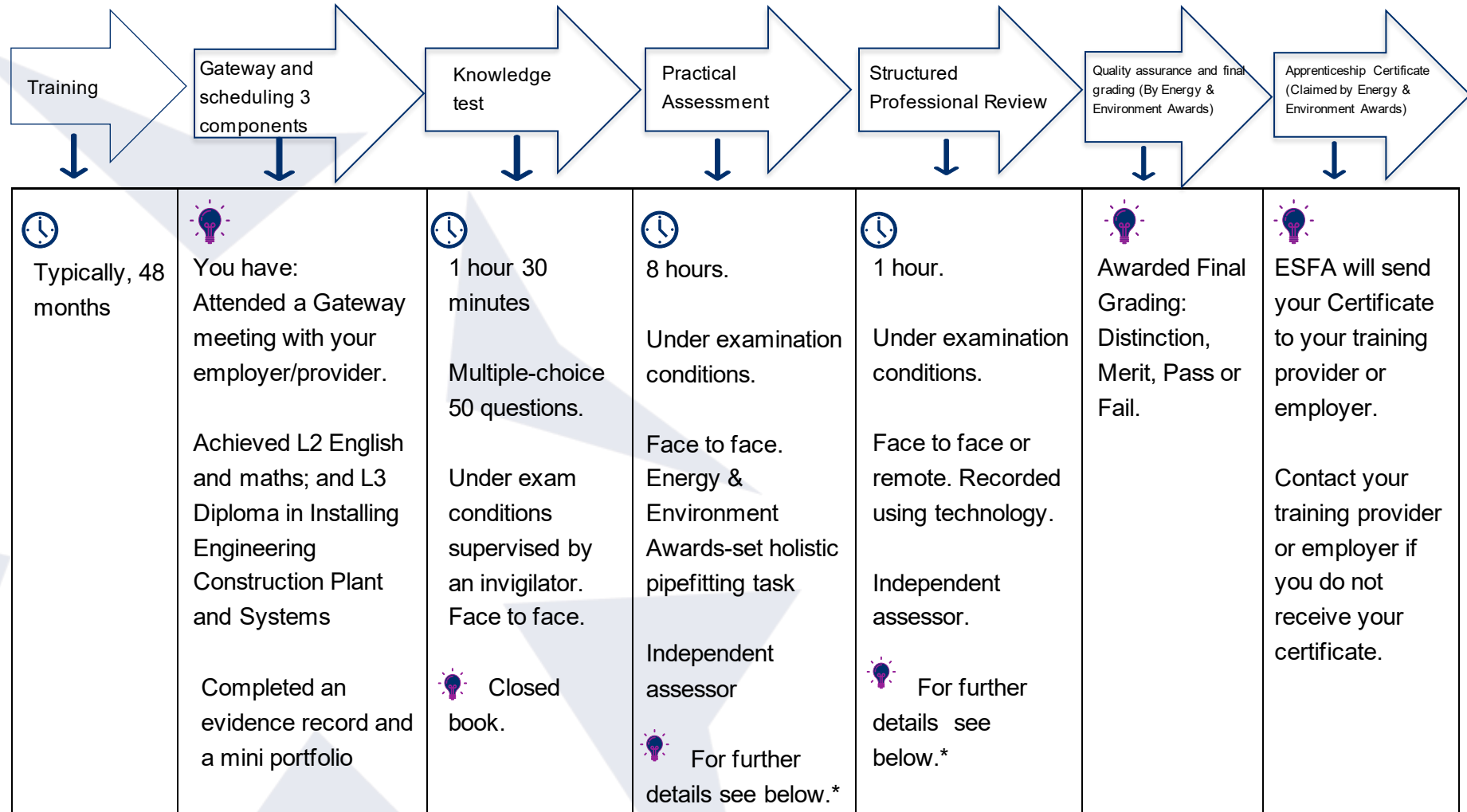
You must pass all 3 components to achieve this qualification. For further guidance refer to Section 3 End-point Assessment Components.

### Reasonable adjustments

A reasonable adjustment is any action that helps to reduce the effect of a disability or difficulty that places you at a substantial disadvantage during assessments. If this applies to you make sure you tell your training provider who can make an application for a reasonable adjustment to Energy & Environment Awards on your behalf.

## Your EPA Journey in a Diagram

The diagram below illustrates the order of your EPA **journey** from the day you register to your final certification:



\*For further details refer to Section 3 in this Apprentice Guide or Section 2 of the Specification

## Section 3: End-point Assessment Components

Now let us continue your journey through EPA. There are 3 components that you must pass to be awarded a certificate.

### Component 1: Knowledge Test

#### Overview

The Knowledge Test is a multiple-choice test. You will have 90 minutes to complete the test. The test consists of 50 questions.

The multiple-choice questions will have four possible answers of which one will be correct.

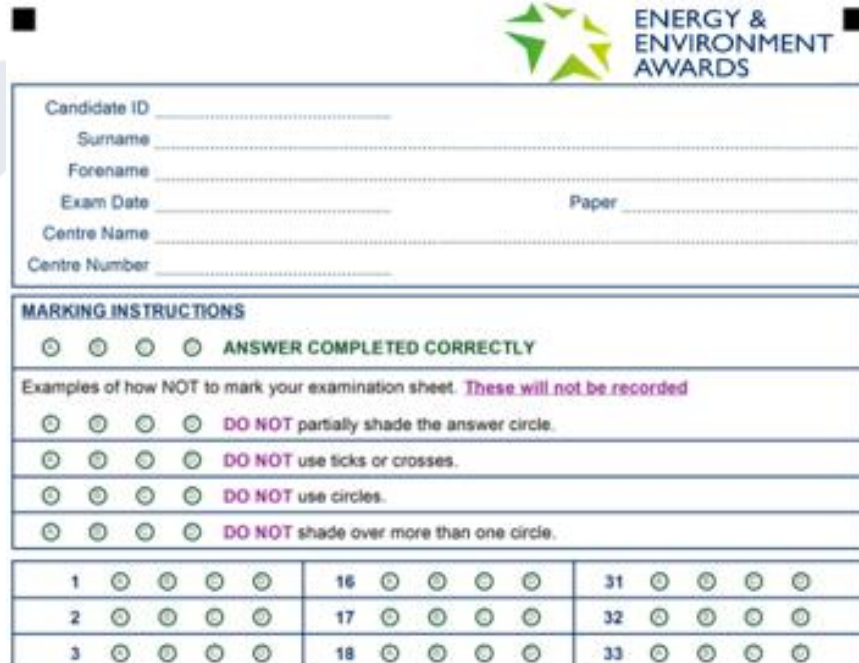


#### Step-by-Step Guide

The table below provides a step-by-step guide on how the multiple-choice test will be carried out:

Who will start and finish your multiple-choice test?	You will sit your multiple-choice test in the presence of an invigilator.														
How will the question appear?	<p>Here is an example of how the question will appear:</p> <table border="1"> <tr> <th colspan="2">Question 1</th></tr> <tr> <td colspan="2">In a workplace, who is responsible for maintaining health and safety?</td></tr> <tr> <th colspan="2">Possible answers</th></tr> <tr> <td>a)</td><td>Employers</td></tr> <tr> <td>b)</td><td>Safety managers</td></tr> <tr> <td>c)</td><td>Most senior person on-site</td></tr> <tr> <td>d)</td><td>Everyone</td></tr> </table>	Question 1		In a workplace, who is responsible for maintaining health and safety?		Possible answers		a)	Employers	b)	Safety managers	c)	Most senior person on-site	d)	Everyone
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Possible answers															
a)	Employers														
b)	Safety managers														
c)	Most senior person on-site														
d)	Everyone														

You must **select one answer** that you think is correct. You will be provided with an answer sheet where you will be expected to shade in the answer you have selected. Here is an example:



The example answer sheet includes the following sections:



- Candidate Information:** Fields for Candidate ID, Surname, Forename, Exam Date, Paper, Centre Name, and Centre Number.
- MARKING INSTRUCTIONS:**
  - ANSWER COMPLETED CORRECTLY: Shows a fully shaded circle.
  - Examples of how NOT to mark your examination sheet. *These will not be recorded*:
    - DO NOT partially shade the answer circle.
    - DO NOT use ticks or crosses.
    - DO NOT use circles.
    - DO NOT shade over more than one circle.
- Answer Grid:** A table with 33 questions (1-33) and five possible answers (A-E) for each.



**Always have a go even if you are not sure that it is the correct answer.**

Can I take any resources into the exam room?	The test is closed which means that you cannot refer to reference books or any other materials. You will be provided with stationery on the day.
Can I have access to the internet?	No access to the internet is allowed and this means you must not take your SMART watch into the exam room.
How will the multiple-choice test be organised for me?	<p><b>Locations:</b> Your multiple-choice test will take place at your employer's or training provider's premises or a suitable venue.</p> <ul style="list-style-type: none"> <li>You will take the test in a quiet space and in the presence of an invigilator</li> <li>Your test will be scheduled by your employer or training provider with Energy &amp; Environment Awards</li> <li>If you fail the multiple-choice test, you can re-sit or re-take the failed test at your employer's discretion. There are no limits to the number of re-sits or re-takes you can</li> </ul>

	take but it is important to revise and ensure that you are confident with the knowledge you are being tested on																
What criteria will I have to learn?	The multiple-choice test questions are knowledge based. Below is a list of the knowledge criteria, assessed in the multiple-choice test along with the range of questions that will be allocated to a multiple-choice test paper:																
<b>AND</b>																	
How many questions will be asked on each criteria?	<table> <tr> <th>No.of Questions</th><th>Knowledge</th></tr> <tr> <td>4-6</td><td> <b>K1</b> Relevant health, safety and environmental legislation, regulations and company-specific requirements for safe working practises and procedures <ul style="list-style-type: none"> <li>• <b>B7</b> Maintain a safe, clean and tidy work area</li> </ul> </td></tr> <tr> <td>1-2</td><td> <ul style="list-style-type: none"> <li>• <b>K2</b> Importance and benefits of recognised Industry safety passport schemes</li> </ul> </td></tr> <tr> <td>3-5</td><td> <b>K3</b> How to work safely, personal site safety responsibilities and how to respond to and provide solutions to <ul style="list-style-type: none"> <li>• problems and emergencies</li> </ul> </td></tr> <tr> <td>5-7</td><td> <b>K4</b> Engineering practices and principles including reading engineering drawings and marking out techniques <ul style="list-style-type: none"> <li>• <b>S4</b> Read, interpret and apply engineering drawing information</li> </ul> </td></tr> <tr> <td>7-9</td><td> <ul style="list-style-type: none"> <li>• <b>K5</b> Mathematical techniques and formula related to the fabrication, development and installation of pipework systems</li> </ul> </td></tr> <tr> <td>7-9</td><td> <ul style="list-style-type: none"> <li>• <b>K6</b> How to correctly select and safely use hand tools, mechanical tools and equipment in differing environments for the fabrication, repair, installation and decommissioning of pipework systems</li> </ul> </td></tr> <tr> <td>7-9</td><td> <ul style="list-style-type: none"> <li>• <b>K7</b> Common and specialist pipe materials such as ferrous, non-ferrous and non-</li> </ul> </td></tr> </table>	No.of Questions	Knowledge	4-6	<b>K1</b> Relevant health, safety and environmental legislation, regulations and company-specific requirements for safe working practises and procedures <ul style="list-style-type: none"> <li>• <b>B7</b> Maintain a safe, clean and tidy work area</li> </ul>	1-2	<ul style="list-style-type: none"> <li>• <b>K2</b> Importance and benefits of recognised Industry safety passport schemes</li> </ul>	3-5	<b>K3</b> How to work safely, personal site safety responsibilities and how to respond to and provide solutions to <ul style="list-style-type: none"> <li>• problems and emergencies</li> </ul>	5-7	<b>K4</b> Engineering practices and principles including reading engineering drawings and marking out techniques <ul style="list-style-type: none"> <li>• <b>S4</b> Read, interpret and apply engineering drawing information</li> </ul>	7-9	<ul style="list-style-type: none"> <li>• <b>K5</b> Mathematical techniques and formula related to the fabrication, development and installation of pipework systems</li> </ul>	7-9	<ul style="list-style-type: none"> <li>• <b>K6</b> How to correctly select and safely use hand tools, mechanical tools and equipment in differing environments for the fabrication, repair, installation and decommissioning of pipework systems</li> </ul>	7-9	<ul style="list-style-type: none"> <li>• <b>K7</b> Common and specialist pipe materials such as ferrous, non-ferrous and non-</li> </ul>
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	metallic including fittings associated with the pipework components and systems
	<div>7-9</div> <ul style="list-style-type: none"> <li>• <b>K8</b> Pipework preparation, fabrication, installation, maintenance, testing and decommissioning techniques commonly used throughout the Engineering Construction industry</li> </ul>
	<div>1-3</div> <ul style="list-style-type: none"> <li>• <b>K9</b> Appropriate codes, practices and industry standards and their application to ensure quality requirements are met</li> </ul>
	 <p><b>Remember</b> the questions have been written to reflect the Engineering Construction Pipefitter role as a whole and are not focussed on specific plant, machinery, or employer-specific processes. For amplification and guidance refer to Section 3 of the ECP Specification.</p>
What should I do to prepare for the multiple-choice test?	<p><b>You should be prepared to:</b></p> <ul style="list-style-type: none"> <li>• revise the criteria listed above</li> <li>• ask your employer or training provider for additional questions that they have prepared to support you</li> <li>• attend the multiple-choice test which will last 90 minutes</li> </ul> <p> While on-programme, the employer or training provider must ensure you are:</p> <ul style="list-style-type: none"> <li>• familiar with all areas assessed by the multiple-choice test as listed above</li> <li>• supported in completing a practice test and provide you with constructive feedback to enable you to identify areas you need to carry out further revision in</li> </ul>



## Practice Component 1: Multiple-Choice test



You should have an opportunity to have a practice multiple-choice test which mirrors the real assessment. The practice multiple-choice test would be set up using the structure in the table above by your employer or training provider. The feedback provided will assist you with preparing for the actual multiple-choice test.

## Component 2: Practical Assessment

### Overview

The Practical Assessment will take the form of one holistic pipefitting task where you must work to the tolerances and specifications stated in an engineering drawing to fabricate, assemble, install, test and then dismantle a piping assembly. During the test an independent assessor, appointed by Energy & Environment Awards, may question you to establish the breadth and depth of your underpinning knowledge. You should attempt to answer all questions in a clear and comprehensive manner, as this will potentially lead to higher marks being awarded.

You will be given a briefing on the scope of the activity you will be required to complete in advance of the actual Practical Assessment. The Practical Assessment will be delivered in a strictly controlled environment and will take a maximum of 8 hours. The exact duration will be similar to the time expected for a competent pipefitter to complete a similar task.

### Step-by-Step Guide



The table below provides a step-by-step guide on how the Practical Assessment will be carried out:

#### Structure of your practical assessment



The total assessment time is 8 hours for completing one holistic pipefitting task.

- The observation with questions may not be split, other than to allow comfort breaks as necessary or to allow you to move from one location to another as required.
- Where breaks occur, the clock will be paused. The assessment time is not reduced.

Where will the assessment take place?	<ul style="list-style-type: none"> <li>• The assessment will take place in a strictly controlled environment</li> <li>• The questioning must take place in a quiet room</li> </ul>
What knowledge, skills and behaviours (KSBs) do I have to demonstrate during the Observation with Questions?	<p><b>Knowledge, Skills and Behaviours:</b></p> <p><b>K4</b> Engineering practice and principles including reading engineering drawings and markings out techniques</p> <p><b>K5</b> Mathematical techniques and formula related to the fabrication, development and installation of pipework systems</p> <p><b>K6</b> How to correctly select and safely use hand tools, mechanical tools and equipment in differing environments for the fabrication, repair, installation and decommissioning of pipework systems</p> <p><b>K7</b> Common and specialist pipe material such as ferrous, non-ferrous and non-metallic including fillings associated with the pipework components and systems</p> <p><b>K8</b> Pipework preparation, fabrication, installation, maintenance, testing and decommissioning techniques commonly used throughout the Engineering Construction industry</p> <p><b>K9</b> Appropriate codes, practices and industry standards and their application to ensure quality requirements are met</p> <p><b>S1</b> Comply with appropriate health and safety, risk and quality requirements</p> <p><b>B6</b> Work safely in accordance with health, safety and environmental legislation, regulations and company-specific requirements</p> <p><b>B7</b> Maintain a safe, clean and tidy work area</p> <p><b>B8</b> Check for and identify potential hazards in the workplace and take collective responsibility to maintain a safe working environment</p>

	<p><b>S2</b> Correctly select and safely use tools and equipment for the fabrication, assembly, installation and decommissioning of pipework components and systems</p> <p><b>S3</b> Plan, organise and undertake the fabrication, assembly, installation, maintenance and decommissioning of pipework components and systems</p> <p><b>S4</b> Read, interpret and apply engineering drawing information</p> <p><b>S5</b> Shape pipework components using hand and power tools to cut, drill, shape and finish components to the required tolerance, specification and standard</p> <p><b>S6</b> Assemble and install pipework using the appropriate methods, techniques and equipment in accordance with the specification including welded, threaded, bolted and clamped jointing solutions</p> <p><b>B2</b> Solve problems within their area of responsibility by applying technical skills and knowledge to define, identify, evaluate and select alternative solutions if required</p> <p><b>S7</b> Ensure the integrity of joints in accordance with specifications, in line with specified quality procedures and to precise tolerances</p> <p><b>B3</b> Take responsibility as an individual and team member for the quality of the work</p> <p><b>S8</b> Undertake the testing and inspection of the fabricated and or installed pipework using the appropriate techniques</p> <p><b>S10</b> Apply techniques for the temporary or permanent removal of an engineering construction piping related system or component</p> <p>For amplification and guidance refer to the ECP Specification:  <a href="https://energyenvironmentawards.co.uk/epa/engineering-construction-pipefitter/">https://energyenvironmentawards.co.uk/epa/engineering-construction-pipefitter/</a> </p>
What tasks will I have to cover?	<p>The assessment will take the form of one holistic pipefitting task where you must work to the tolerances and specifications stated in an engineering drawing to fabricate, assemble, install, test and then dismantle a piping assembly.</p>

What resources can I use?	<p>You will need access to the following resources:</p> <ul style="list-style-type: none"> <li>• A workshop with a range of hand tools, mechanical tools and equipment for the fabrication, installation and decommissioning of a pipework system</li> <li>• Health and safety equipment</li> <li>• The raw materials and sundries required to produce the fabricated parts. Energy &amp; Environment Awards have produced a list of items which should be made available. The list will be given to your training provider</li> </ul> <p>The rig to bolt your completed assembly onto. This is provided by Energy &amp; Environment Awards.</p>
How many questions will I be asked?	The number of questions is not fixed and is typically between three and nine.
Who will assess me?	An independent assessor, appointed by Energy & Environment Awards.
Provisional Grading	The independent assessor will award a provisional grade. You must pass <b>ALL</b> the pass criteria in order to achieve a pass.
Overall grading for this component	Fail, Pass, Merit or Distinction.

### Practice Component 2: Practical Assessment

You should have an opportunity to have a practice practical assessment which mirrors the real assessment. A practice practical would be set up for you using the structure in the table above by your employer or training provider.

## Component 3: Structured Professional Review

### Overview

The Structured Professional Review (SPR) takes place after successful completion of the Knowledge Test and Practical Assessment. It is to allow you to demonstrate how you have met the KSBs to carry out your occupational role as an Engineering Construction Pipefitter effectively and safely. The review can also be used to question you on any specific areas that you may have failed to effectively demonstrate through either the knowledge test or practical assessment.

The SPR would be expected to last 90 minutes and will consist of a professional discussion and behavioural questions with one independent assessor, appointed by Energy & Environment Awards.

You should expect to discuss evidence of your work as recorded in your Evidence Record and mini portfolio. You will be asked to complete and submit these at your Gateway meeting. The review will be fully recorded for the purpose of audit and quality assurance.

### Evidence Record

The Evidence Record is in two parts:

- Part A – description of evidence in the mini-portfolio cross-referenced to the Engineering Construction Pipefitter (ECP) standard
- Part B – Engineering Technician commentary (UK-SPEC ENG TECH). This allows you to evidence where you have satisfied the requirements against the five UKSPEC areas of competence to register as Eng. Tec (UK Spec).

### Mini portfolio

Before you start your end-point assessment, you must compile a mini-portfolio which covers three different pipefitting jobs. The jobs chosen should cover at least two of the following types of pipe:

- ferrous pipe
- plastic pipe
- non-ferrous pipe.

The mini portfolio must contain at least one piece of evidence to cover each of the required ECP skills and behaviours. No other evidence should be included.

### Preparing for the SPR

The SPR is your time to showcase your skills, knowledge and behaviours from a range of complex work-based activities you have already completed.


It is recommended that you carry out a 'mock structured professional review' with your mentor/supervisor as this will allow you to familiarise yourself with the ways in which to articulate all aspects of your skills, knowledge and behaviours to the assessor.


The review assesses the following knowledge skills, and behaviours from the standard.



### Step-by-Step Guide

The table below provides a step-by-step guide on how the SPR will be carried out:

<b>Who will assess me?</b>	apprentices who started their apprenticeship <ul style="list-style-type: none"> <li>on or after 15 August 2023 -1 independent assessor, appointed by Energy &amp; Environment Awards</li> <li>before 15 August 2023 - 2 independent assessors, appointed by Energy &amp; Environment Awards</li> </ul>
<b>How will the interview be organised?</b>	<p><b>Locations:</b> Your interview will take place at your employer's premises or a suitable venue.</p> <p><b>Time:</b> Your interview will be 1 hour 30 minutes</p> <p> <b>Your SPR will be:</b></p> <ul style="list-style-type: none"> <li>a discussion between you and the independent assessor</li> <li>face to face or remote, as agreed</li> <li>assessed and outcomes will be recorded by the assessor on official Energy &amp; Environment Awards interview documents</li> <li>recorded using the relevant technology such as Microsoft Teams or an audio recording device</li> </ul>

<p>What topics will I have to cover?</p>	<p><b>Questions will cover a typical pipefitting activity:</b></p> <ul style="list-style-type: none"> <li>• Understanding and accepting the task</li> <li>• Reading and extracting information from engineering drawings and designs</li> <li>• Recognising and adhering to safety considerations</li> <li>• Preparing the tools, equipment and work area</li> <li>• Performing the task and working to specifications</li> <li>• Working with others or as part of a team</li> <li>• Completing the task</li> <li>• Reporting the task</li> <li>• Recovering tools, area and equipment .</li> </ul> <p> <b>For amplification and guidance refer to the ECP Specification:</b></p> <p><a href="#">Engineering Construction Pipefitter Level 3 - Energy &amp; Environment Awards</a></p>
<p>How many questions will I be asked?</p>	<ul style="list-style-type: none"> <li>• Set questions which maybe contextualised to the contents of your portfolio</li> <li>• Follow-up questions in order to seek clarification</li> </ul>
<p>When will the Evidence Record and mini portfolio of evidence be submitted and referred to?</p>	<p>The Evidence Record and mini portfolio must be submitted to Energy &amp; Environment Awards at Gateway</p> <p>The Evidence Record will help you provide evidence for meeting the Eng Tech requirements. Further guidance can be found in the UK-SPEC published by the Engineering Council</p> <p>The mini portfolio of evidence comprises three different pipefitting jobs which should cover at least two of the following types of pipe: ferrous, plastic, non-ferrous pipe.</p> <p>These documents will be reviewed by the independent assessor before the SPR. You can refer to them to illustrate your answers.</p> <p>Note: Neither of these documents are directly assessed</p>



<b>Provisional Grading</b>	The independent assessor will award a provisional grade. You must pass <b>ALL</b> the pass criteria in order to achieve a pass.
<b>Overall grading for this component</b>	Fail, Pass, Merit or Distinction

### How do I organise my mini portfolio and evidence record?

Before you start your end-point assessment, you must compile a mini-portfolio which covers three different pipefitting jobs. The jobs chosen are expected to cover at least two of the following types of pipe:

- ferrous pipe
- plastic pipe
- non-ferrous pipe.

Your mini portfolio must contain at least one piece of evidence to cover each of the required ECP skills and behaviours.

Evidence must be:



- produced by you (authentic)
- relevant to the standard (K, S or B) that it is mapped to
- produced during the time you were carrying out your on-programme training.

Do not include any other evidence. You should be supported in selecting and mapping evidence for your portfolio by your employer or training provider.

Your Evidence Record and mini-portfolio should be saved as one pdf document before submitting it to Energy & Environment Awards at the same time as the Gateway meeting.

The form must be signed and authenticated by you and your supervisor.

A copy of the Evidence Record form can be found in Appendix B of this Apprenticeship Guide.



## What can I do to prepare for the SPR?

You should:

- be familiar with the structure of your mini-portfolio and the content of the evidence record
- know the KSBs covered by the SPR
- know where you have mapped your KSBs by referring to your evidence record document
- ensure there is quality evidence to cover every KSB in the SPR
- practise mapping evidence and completing the evidence mapping grid
- know how you will be graded.

## The role of your employer or training provider

Employers or training providers are expected to support you in preparing your mini-portfolio and evidence record by:

- clarifying responsibility for supporting you in selecting and mapping evidence for your mini-portfolio, including the role of employer coaches/mentors where applicable
- advising you on which pieces of evidence you should select to ensure that when it is looked at as a whole, your evidence provides coverage of all the required elements of the standard (KSBs) assessed in the interview
- supporting the mapping of your evidence and production of your mapping document
- authenticating evidence you provide is valid
- signing off your portfolio
- submitting your portfolio to Energy & Environment Awards as part of Gateway.

## Practice Component 3: Structured Professional Review

You should have an opportunity to have a practice SPR which mirrors the real assessment. The practice interview based on your portfolio of evidence would be set up using the structure in the table above by your employer or training provider.

## Overall grading

Each assessment component is marked separately. They have a result (given as a percentage) and are awarded a grade (Fail, Pass, Merit or Distinction). Your overall grade is based on the outcome of all 3 components of your EPA. Each of the components is weighted. Weighting means some of your assessments are worth more than others. If an assessment weighting is set to '50%' then it will contribute to half of the overall score. The final decision on your overall grade is made by Energy & Environment Awards.

The Knowledge Test grade is based on the number of questions answered correctly. The grade and mark for both the Practical Assessment and the Structured Professional Review are based on the number and level of criteria achieved.

	Pass	Merit	Distinction	Contribution to overall grade (weighting)
<b>Knowledge Test</b>	Score 30/50 Result = 60%	Score 35/50 Result = 70%	Score 43/50 Result = 85%	35%
<b>Practical Assessment</b>	Achieve all pass criteria  Result = 60%	Achieve a pass plus minimum of 3 merit criteria  Result = 75%	Achieve a merit plus minimum of 2 distinction criteria  Result = 85%	55%
<b>Structured Professional Review</b>	Achieve all pass criteria  Result = 60%	Achieve a pass plus minimum of 3 merit criteria  Result = 75%	Achieve a merit plus minimum of 2 distinction criteria  Result = 85%	10%

The overall EPA grade (Fail, Pass, Merit, Distinction) is determined by

- Calculating an overall percentage, based on the marks and weightings in individual components
- Using the number of passes, merits and distinctions awarded across the assessment methods.

The overall grade for the ECP standard is based on the overall mark and grades achieved in individual elements as follows:

Overall EPA percentage	$\geq 85\%$	$\geq 70\%$	$\geq 60\%$	$\geq 0\%$
	AND	AND	AND	AND
Number of passes, merits and distinctions	minimum of 2 merits and 1 distinction	minimum of 2 merits	minimum of 3 passes	at least 1 fail
	=	=	=	=
Final grade awarded	<b>Distinction</b>	<b>Merit</b>	<b>Pass</b>	<b>Fail</b>

### Example

An apprentice achieves

- Knowledge Test: 72% (Merit)
- Practical Assessment: 68% (Pass)
- Structured Professional Review: 90% (Distinction)

The overall percentage is calculated as

- $(72 \times 0.35) + (68 \times 0.55) + (90 \times 0.10) = 71.6\%$

The apprentice would achieve a merit because

- Their overall percentage is greater than 70%
- They have achieved a minimum of 2 merits (merit, pass, distinction).

## Section 4: Resits and retakes

If you fail one or more EPA components, you can re-sit or a re-take the failed component at your employer's discretion. Your employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, but a re-take does. You should have a supportive action plan to prepare for your re-sit or re-take.

If you fail a component, you should have a supportive action plan to prepare for a re-sit or a re-take.

The retake must only be carried out after one month has elapsed since the first scheduled date of the EPA element. Your employer and Energy & Environment Awards agree the timescale for a re-sit or re-take. A re-sit is typically taken within 2 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 3 months of the EPA outcome notification. Your employer and Energy & Environment Awards will agree the timescale for your re-sit or re-take. Failed EPA component(s) must be re-sat or re-taken within the 6 months of the fail notification, otherwise the entire EPA will need to be re-sat or re-taken in full, unless in the opinion of Energy & Environment Awards exceptional circumstances apply outside the control of you or your employer.

Where any assessment method has to be re-sat or re-taken, you will be awarded a maximum EPA grade of pass, unless Energy & Environment Awards determines there are exceptional circumstances which required a re-sit or re-take.

Re-sits and re-takes will not be offered to you if you wish to move from pass to a higher grade.

Energy & Environment Awards resit and re-take policy can be found at:  
[Policies and Fees - Energy & Environment Awards](#)

## Section 5: Appendices

Appendix A: Glossary

Appendix B: Evidence Record for the Professional Review

## Appendix A: Glossary

**Amplification** – provides more detail on how individual knowledge, skills or behaviours statements should be interpreted. Where the KSB statements, themselves are deemed self-explanatory, no amplification is provided. Assessment may include questions on anything identified in the amplification

**Behaviours** – mindsets, attitudes or approaches needed for competence. Whilst these can be innate or instinctive, they can also be learnt. Behaviours tend to be very transferable. They may be more similar across occupations than knowledge and skills. For example, team worker, adaptable and professional

**Elements** – are the knowledge, skills and behaviours and what is needed to competently undertake the duties required for an occupational standard

**Guidance** – is only provided where it is required to support interpretation of the KSB statements

**Gateway** – the stage of the apprenticeship where the apprentice, employer and trainer determine whether the apprentice is ready to undertake the End-Point Assessment

**Independent Assessor** – Will holistically assess the knowledge, skills and behaviours (KSBs) that you have been learnt throughout the apprenticeship. Their role as an Independent Assessor would involve assessing components 2 (Practical Assessment) and 3 (Structured Professional Review)

**Knowledge** – the information, technical detail, and ‘know-how’ that someone needs to have and understand to successfully carry out the duties. Some knowledge will be occupation-specific, whereas some may be more generic

**Options / Pathways** – a specialist route within an occupational standard that builds on the occupational competence for a new entrant to the occupation

**Skills** – the practical application of knowledge needed to successfully undertake the duties. They are learnt through on and/or off-the-job training or experience

**Standard** – An occupational standard is a description of an occupation. It contains occupational profile, and describes KSBs needed for someone to be competent in the occupation's duties. The occupational standards are developed by employers for occupations that meet the Institute for Apprenticeships & Technical Education current criteria. For further details refer to:

[Engineering construction pipefitter / Skills England](#)

**Topic** - is a collection of elements grouped into a theme e.g., Health and Safety

## Appendix B: Evidence Record for the Structured Professional Review

Full Name of Apprentice	
Employer	

### Completing the Evidence Record and compiling your mini-portfolio

The Evidence Record must be submitted alongside a mini portfolio.

The Evidence Record is in two parts:

- Part A – description of evidence in the mini-portfolio cross-referenced to the Engineering Construction Pipefitter (ECP) standard
- Part B – Engineering Technician commentary (UK-SPEC ENG TECH).

Before you start your end-point assessment, you must compile a mini-portfolio which covers **three different** pipefitting jobs. The jobs chosen are expected to cover at least two of the following types of pipe:

- ferrous pipe
- plastic pipe
- non-ferrous pipe.

Your mini portfolio must contain at least one piece of evidence to cover each of the required ECP skills and behaviours. Do not include any other evidence.

Please save this Evidence Record and supporting evidence (mini-portfolio) as one pdf document before submitting it. The evidence must be submitted to Energy & Environment Awards at the same time as the Gateway meeting.

The form must be signed and authenticated by you and your supervisor.



## Declaration

### Apprentice's declaration

I certify the information contained in this report and any accompanying documentation is correct.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Supervisor's declaration

I confirm I have known the apprentice for a minimum of one year. To the best of my knowledge, all the information contained in this report is correct.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Part A

Standard Element	Description of evidence	Job Ref eg. Job 1 - 3
K1		
K2		
K3		
S1		
S2		
S3		
S4		
S5		
S6		
S7		
S8		
S9		
S10		
S11		
B2		
B3		
B4		
B5		
B6		
B7		
B8		
B9		

## Reference to ECP Standard (ST0162/AP02)

**K1** Relevant health, safety and environment legislation, regulations and company-specific requirements for safe working practises and procedures

**K2** Importance and benefits of recognised industry safety passport schemes

**K3** How to work safely, personal site safety responsibilities and how to respond to and provided solutions to problems and emergencies

**S1** Comply with appropriate health and safety, risk and quality requirements

**S2** Correctly select and safely use tools and equipment for the fabrication, assembly, installation and decommissioning of pipework components and systems

**S3** Plan, organise and undertake the fabrication, assembly, installation, maintenance and decommissioning of pipework components and systems

**S4** Read, interpret and apply engineering drawing information

**S5** Shape pipework components using hand and power tools to cut, drill, shape and finish components to the required tolerance, specification and standard

**S6** Assemble and install pipework using the appropriate methods, techniques and equipment in accordance with the specification including welded, threaded, bolted and clamped jointing solutions.

**S7** Ensure the integrity of joints in accordance with specifications, in line with specified quality procedures and to precise tolerances

**S8** Undertake the testing and inspection of the fabricated and/or installed pipework using the appropriate techniques

**S9** Work with others and contribute to effective working relationships within an Engineering Construction environment

**S10** Apply techniques for the temporary or permanent removal of an engineering construction piping related system or component

**S11** Communicate by keeping others informed about work plans or activities which may affect them and seek assistance from others without causing undue disruption to normal work activities

**B1** Work with others to effectively and efficiently complete the allocated tasks

**B2** Solve problems within their area of responsibility by applying technical skills and knowledge to define, identify, evaluate and select alternative solutions if required

**B3** Take responsibility as an individual and team member for the quality of the work

**B4** Support their own learning and development and that of others through activities such as mentoring and sharing of expertise and knowledge

**B5** Act ethically displaying maturity, honesty, integrity and responsibility

**B6** Work safely in accordance with health, safety and environmental legislation, regulations and company-specific requirements

**B7** Maintain a safe, clean and tidy work area

**B8** Check for and identify potential hazards in the workplace and take collective responsibility to maintain a safe working environment

**B9** Question unsafe behaviours and incorrect work practises and procedures

## Part B

Describe your roles and responsibilities carefully and concisely, and give a brief description of Jobs 1, 2 and 3.

This is intended to give the panel members an **overview** of your particular working environment.

My Role:
Job 1:
Job 2:
Job 3:

Give an example of a project or task where you solved a technical problem, explaining your role and how you selected the appropriate techniques, procedures and methods used.

Include details about any scientific, technical or engineering principles you used.

[450-500 words]



#### **EngTech (UK Spec) Reference**

**A** Use engineering knowledge and understanding to apply technical and practical skills

Give an example of how you have identified, planned, and organised the resources needed to effectively complete a project or task, explaining how you took into consideration cost, quality, safety and any environmental impact.

Remember to think about what equipment was used, and/or how data was gathered and analysed to produce the desired outcome.

[450-500 words]

#### **EngTech (UK Spec) Reference**

**B** Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services

Give an example of how you have identified and taken responsibility for completing a task or activity that demonstrates your skills, including working to agreed procedures and codes, managing resources and assigning tasks to others.

[450-500 words]

**EngTech (UK Spec) Reference**

**C** Accept and exercise personal responsibility



Give examples of how you have contributed to discussions, meetings, presentations or reports, communicated and worked effectively with colleagues and others, showing your awareness of the importance of issues such as diversity and equality.

[450-500 words]



**EngTech (UK Spec) Reference**

**D** Use effective communication and interpersonal skills

Give an example of how you have:

- Complied with your company's Code of Conduct
- Taken personal responsibility for your safety and the safety of others
- Contributed to sustainable development including environmental, social and economic aspects
- Kept in touch with developments in your technical area and continued to develop your knowledge and skills.

[450-500 words]

### EngTech (UK Spec) Reference

**E** Make a personal commitment to an appropriate code of professional conduct, recognising obligations to society, the profession and the environment



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